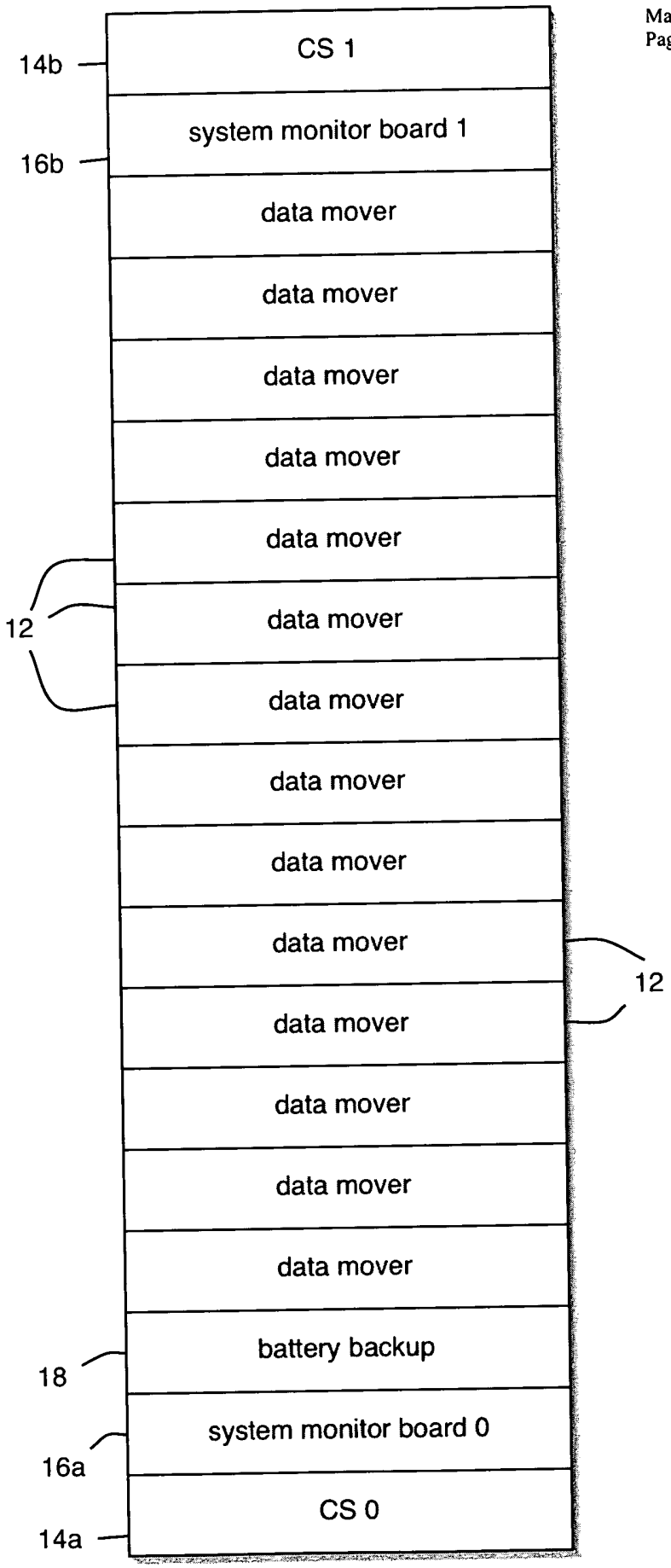

CS 1
14b
system monitor board 1
16b
data mover
data mover
data mover
data mover
data mover
12
data mover
data mover
data mover
data mover
data mover
12
data mover
data mover
data mover
data mover
battery backup
18
system monitor board 0
16a
CS 0
14a

Fig. 1

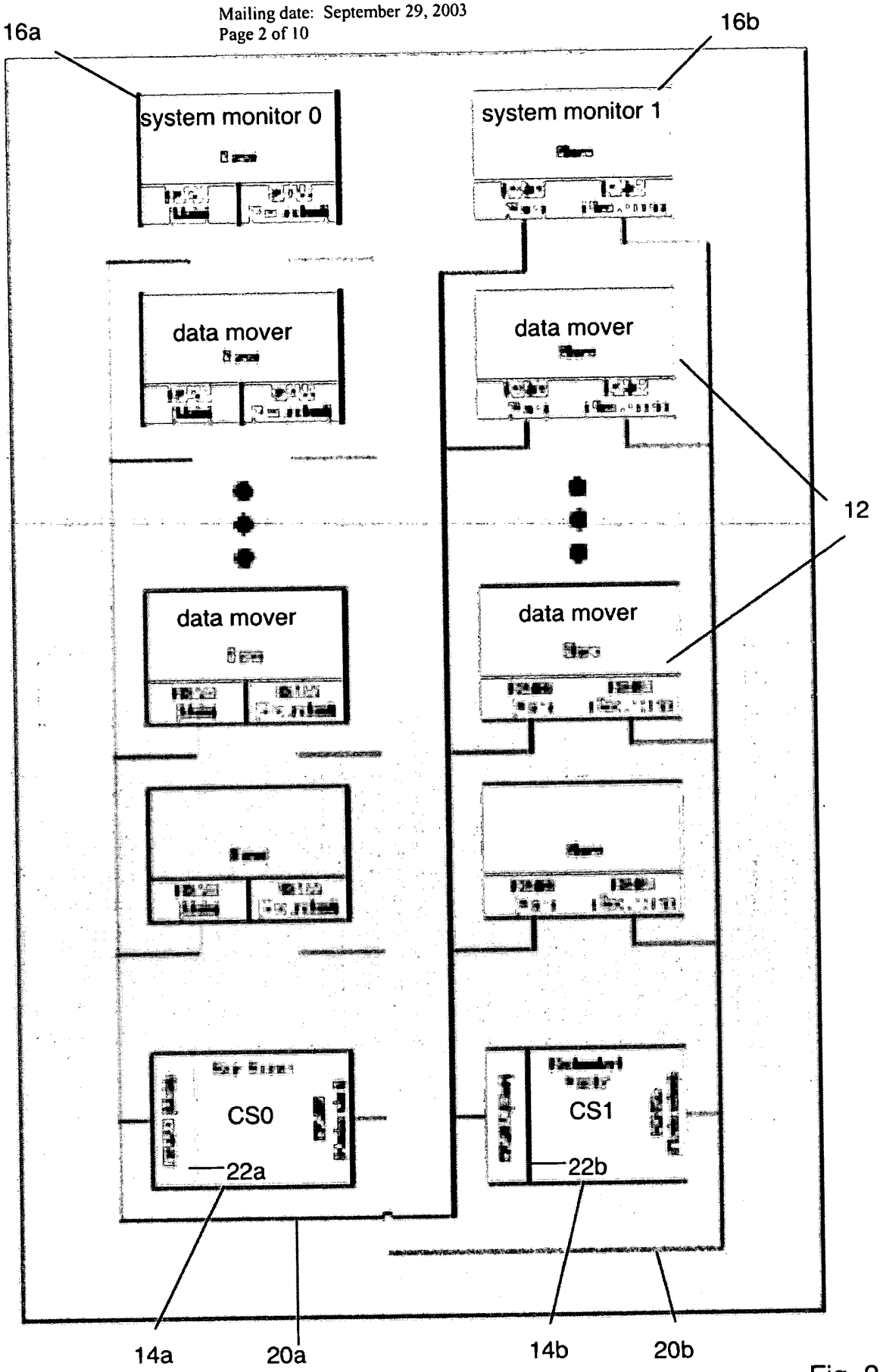

16a
16b
system monitor 0
system monitor 1
data mover
data mover
data mover
data mover
12
CS0
CS1
22a
22b
14a
20a
14b
20b

Fig. 2

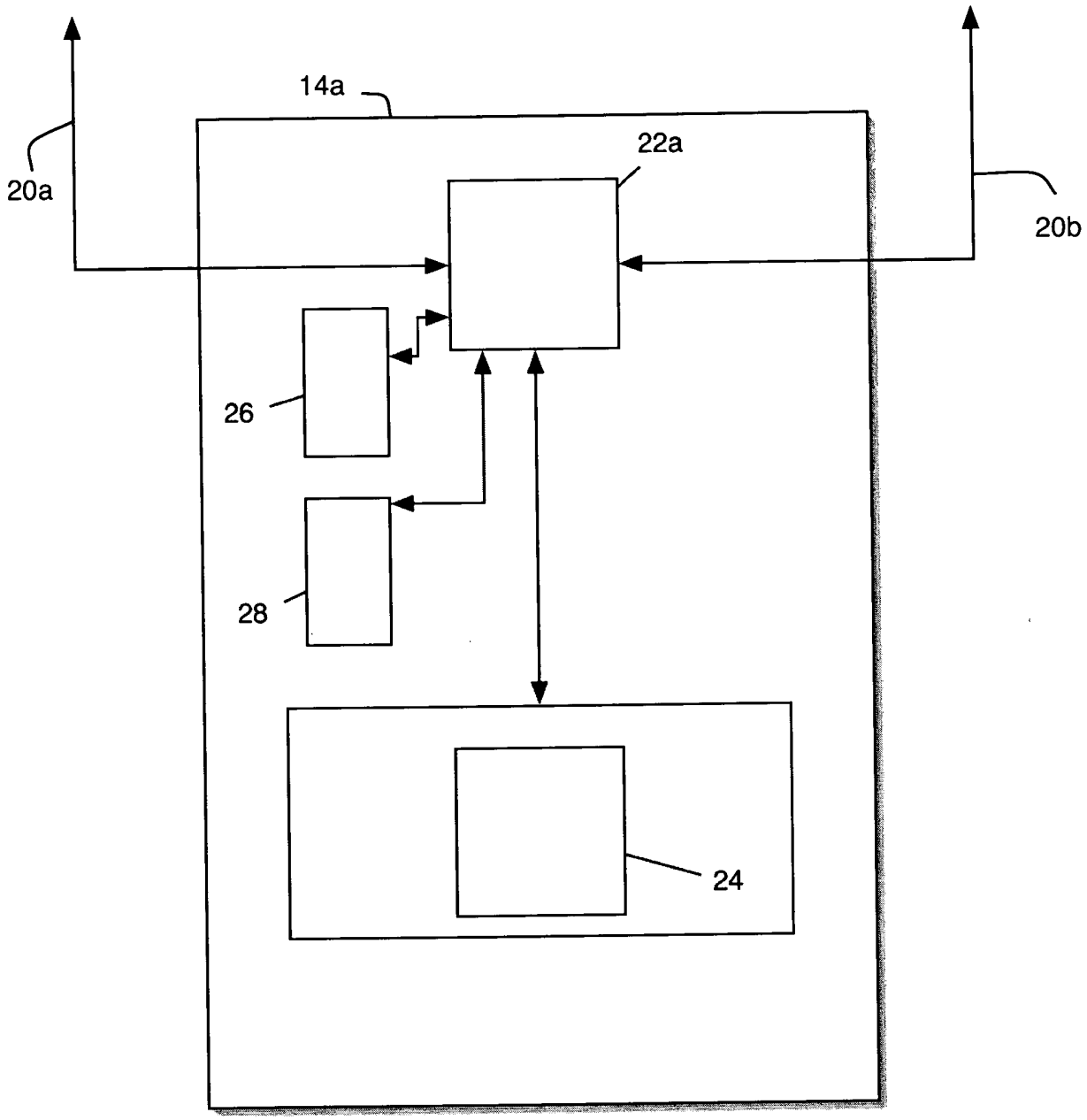


Fig. 3

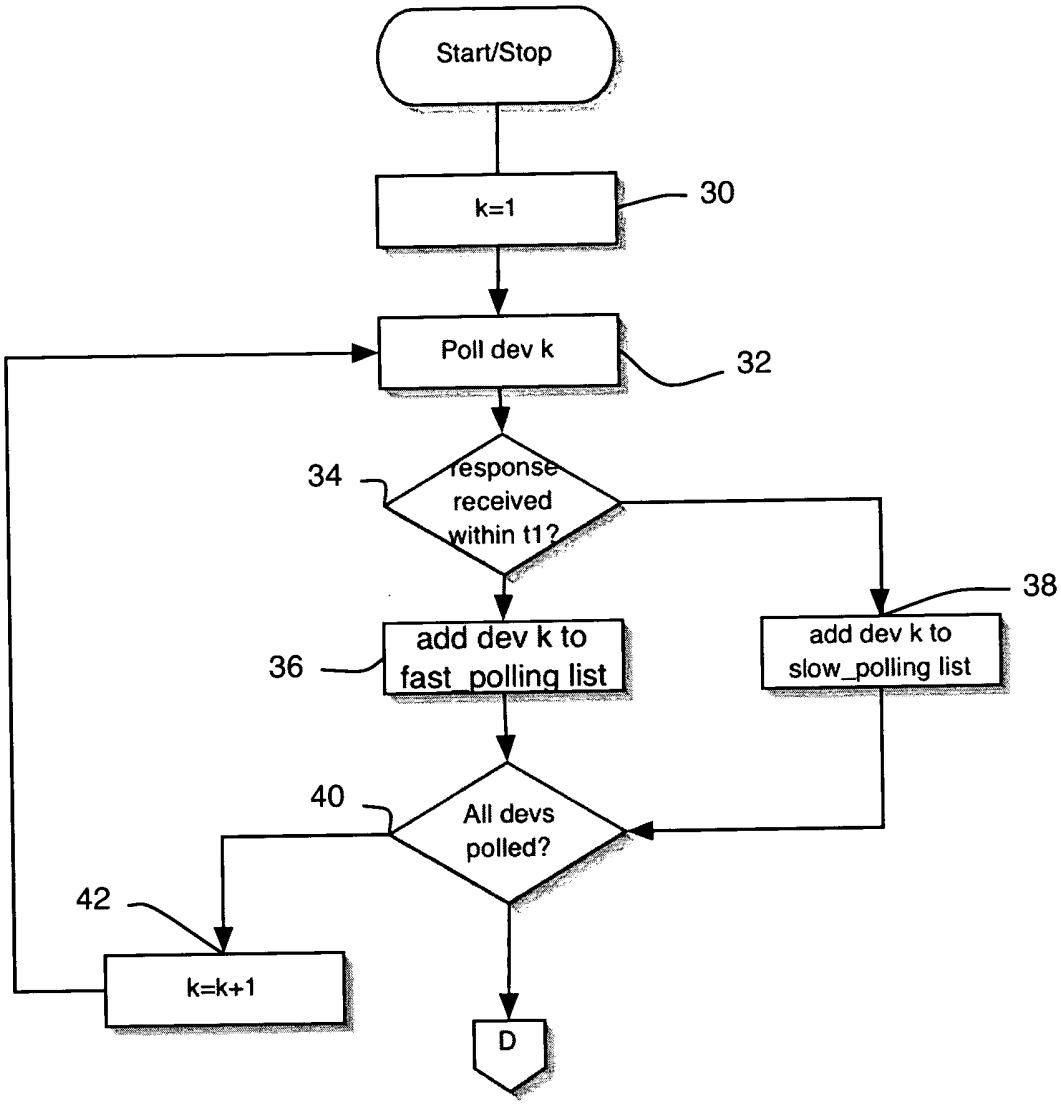

Start/Stop
k=1
30
Poll dev k
32
34
response received within t1?
38
add dev k to fast_polling list
36
add dev k to slow_polling list
40
All devs polled?
42
k=k+1
D

Fig. 4A

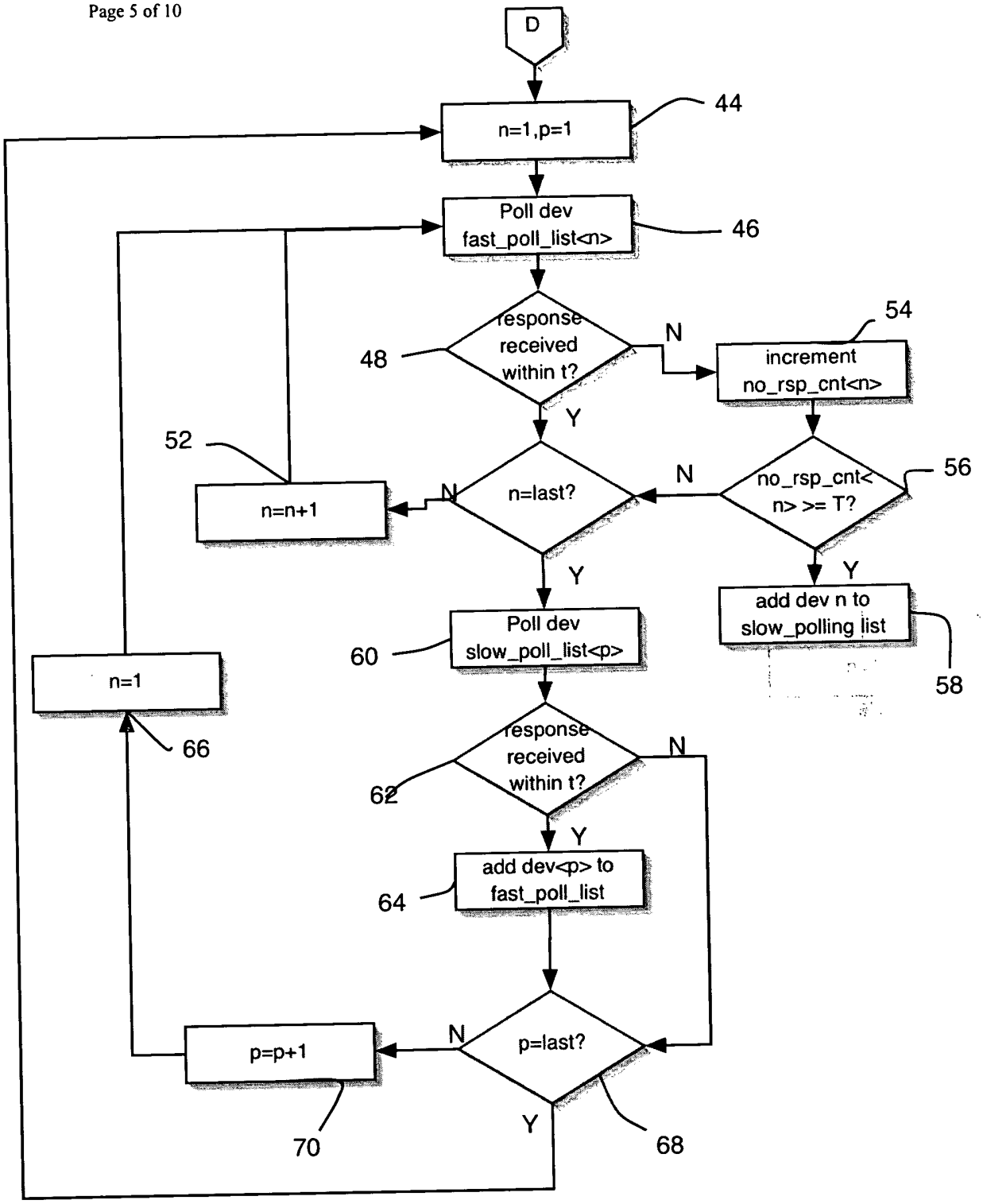

D
n=1,p=1
44
Poll dev
fast_poll_list<n>
46
response
received
within t?
48
N
Y
increment
no_rsp_cnt<n>
54
52
n=n+1
n=last?
N
Y
no_rsp_cnt<
n> >= T?
56
Y
add dev n to
slow_polling list
58
Poll dev
slow_poll_list<p>
60
n=1
66
response
received
within t?
62
N
Y
add dev<p> to
fast_poll_list
64
p=p+1
N
p=last?
Y
70
68

Fig. 4B

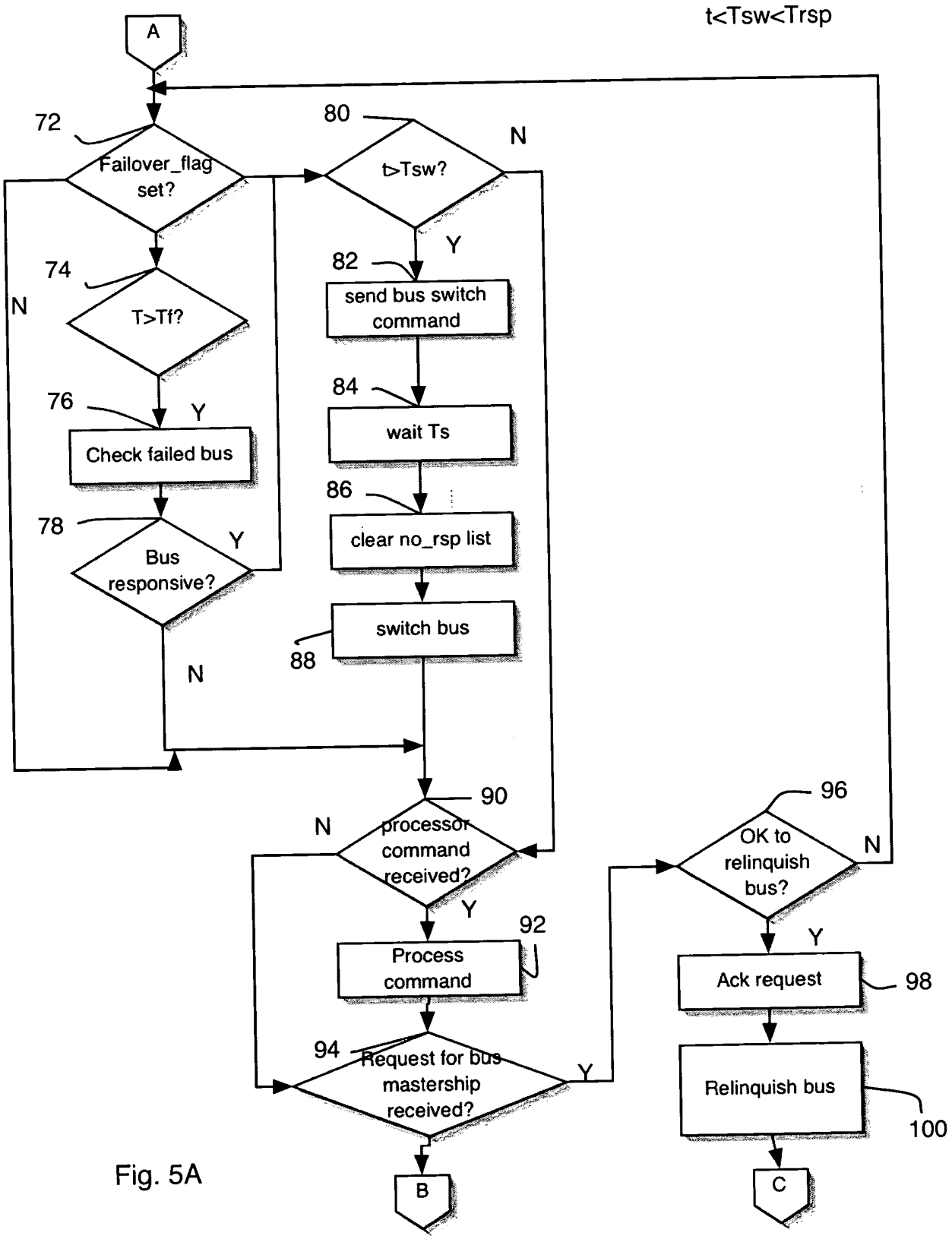

t<Tsw<Trsp
A
72
Failover_flag set?
80
t>Tsw?
N
Y
74
T>Tf?
N
82
send bus switch command
76
Check failed bus
Y
84
wait Ts
78
Bus responsive?
Y
86
clear no_rsp list
switch bus
88
N
90
processor command received?
N
Y
92
Process command
94
Request for bus mastership received?
Y
96
OK to relinquish bus?
N
Y
Ack request
98
Relinquish bus
100
B
C

Fig. 5A

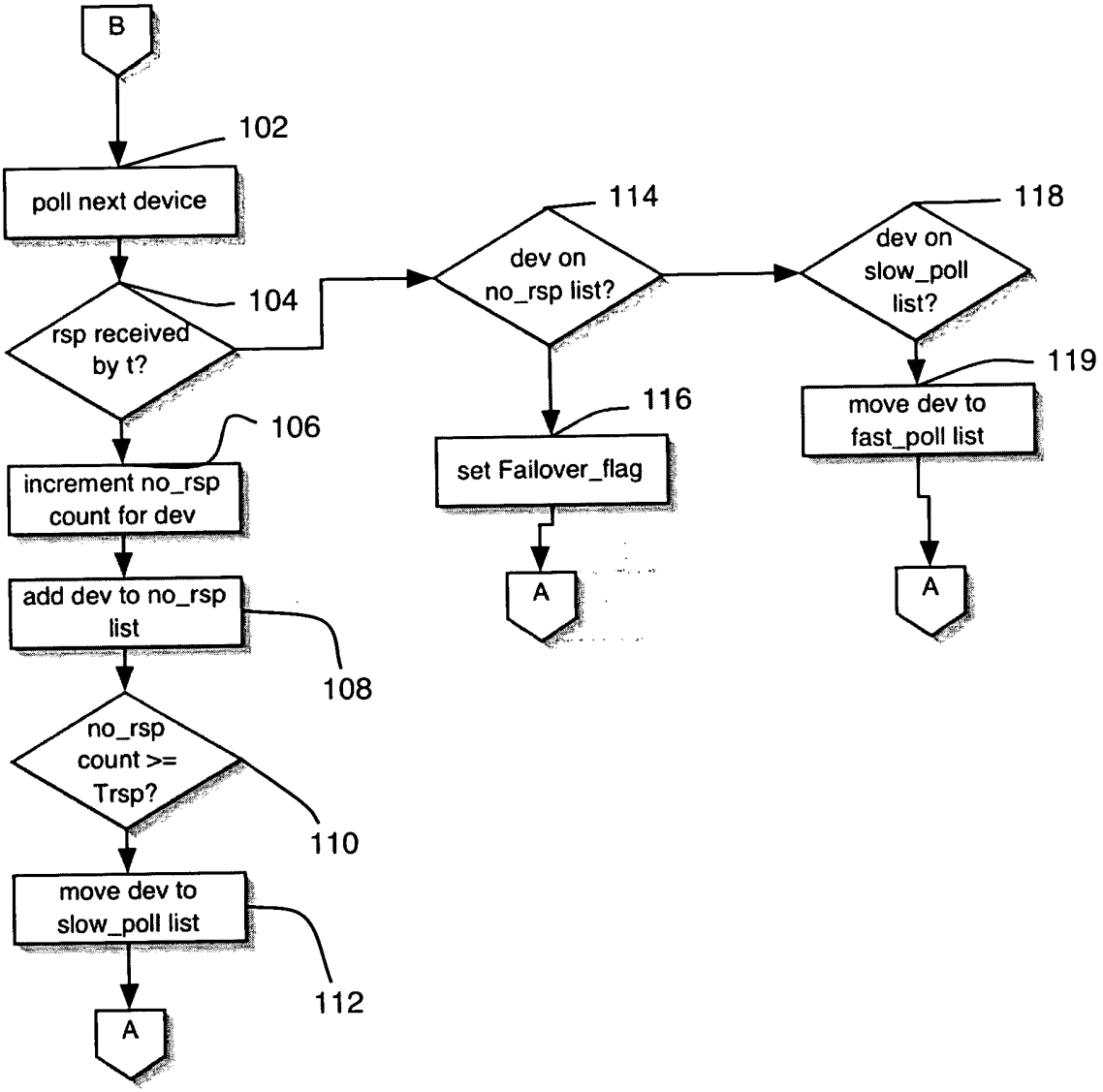

B
102
poll next device
104
rsp received by t?
106
increment no_rsp count for dev
add dev to no_rsp list
108
no_rsp count >= Trsp?
110
move dev to slow_poll list
112
A
114
dev on no_rsp list?
116
set Failover_flag
A
118
dev on slow_poll list?
119
move dev to fast_poll list
A

Fig. 5B

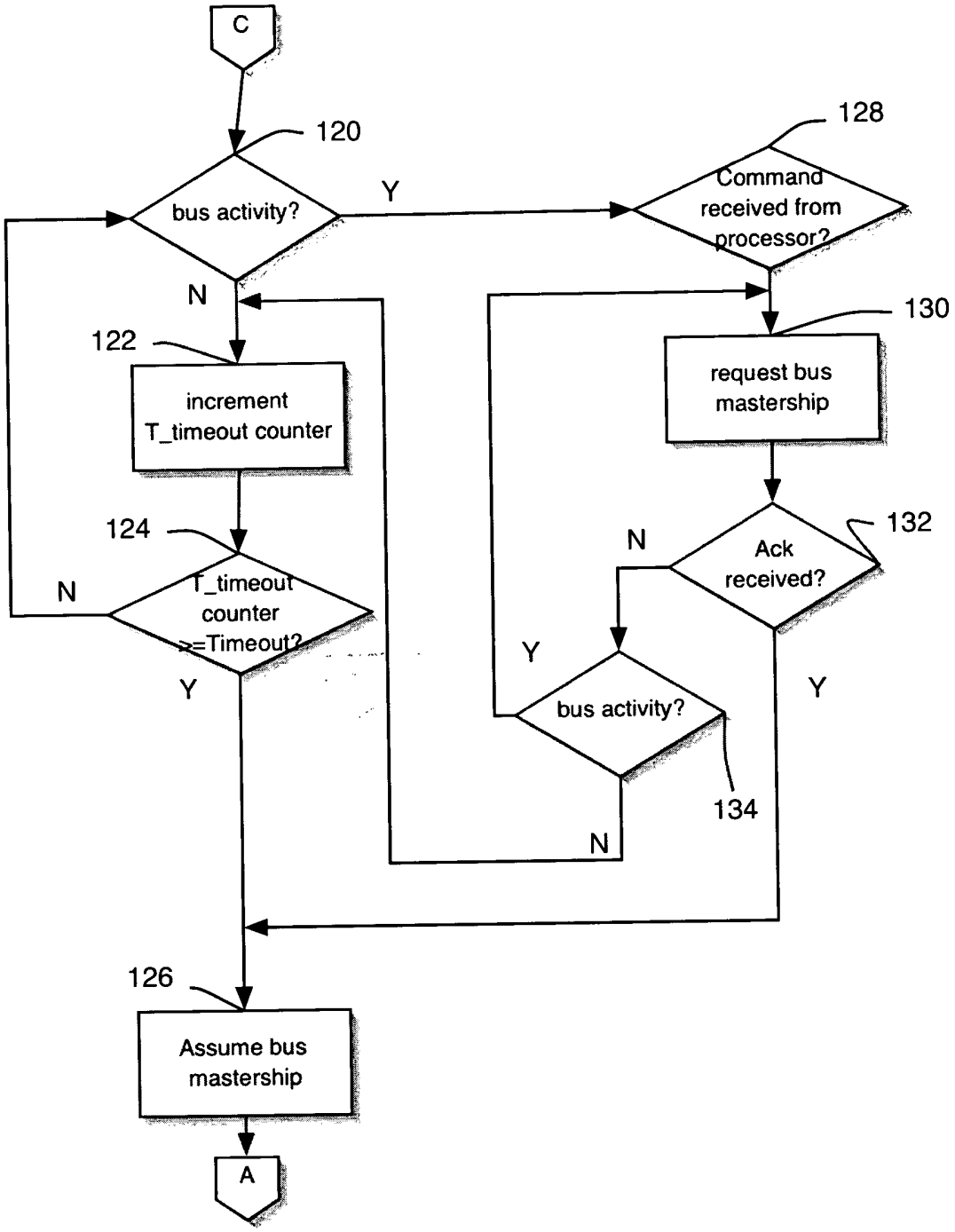

C
120
bus activity?
Y
128
Command received from processor?
N
122
increment T_timeout counter
130
request bus mastership
124
T_timeout counter >=Timeout?
N
Y
N
Ack received?
132
Y
Y
bus activity?
134
N
126
Assume bus mastership
A

Fig. 6

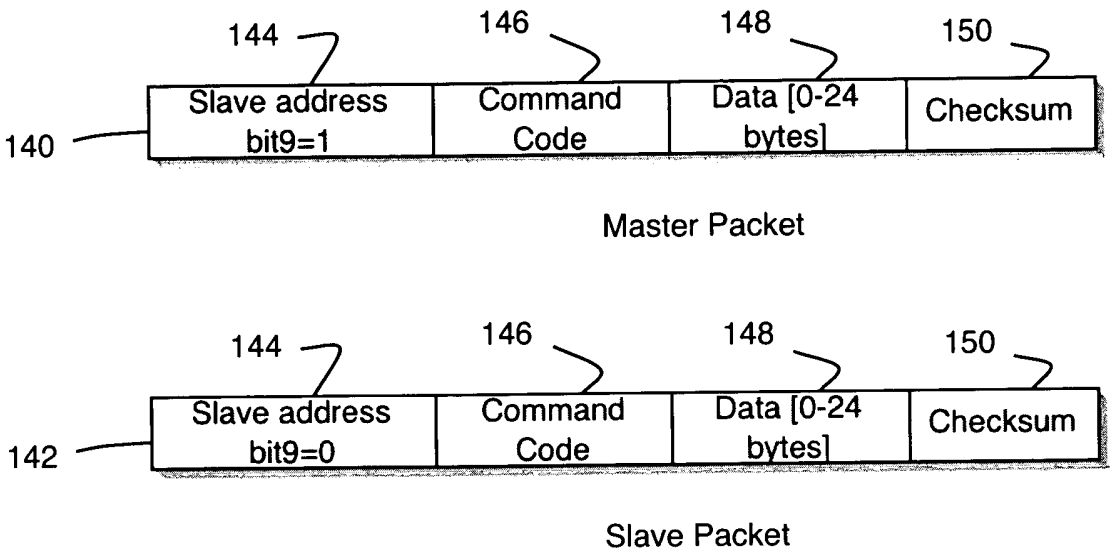

144
146
148
150
Slave address bit9=1
Command Code
Data [0-24 bytes]
Checksum
140
Master Packet
144
146
148
150
Slave address bit9=0
Command Code
Data [0-24 bytes]
Checksum
142
Slave Packet

Fig. 7

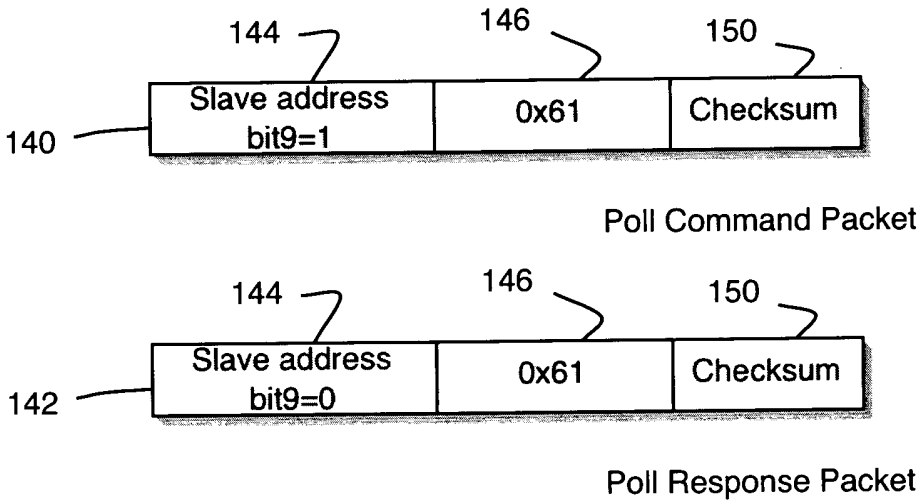
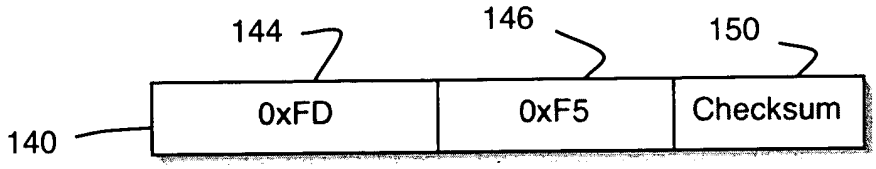
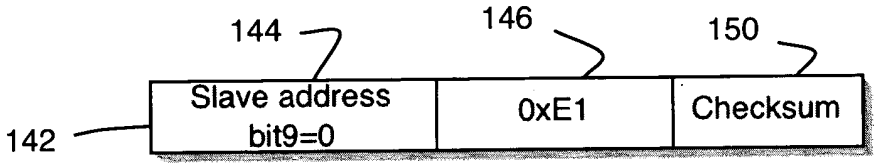

144
146
150
Slave address bit9=1
0x61
Checksum
140
Poll Command Packet
144
146
150
Slave address bit9=0
0x61
Checksum
142
Poll Response Packet

Fig. 8

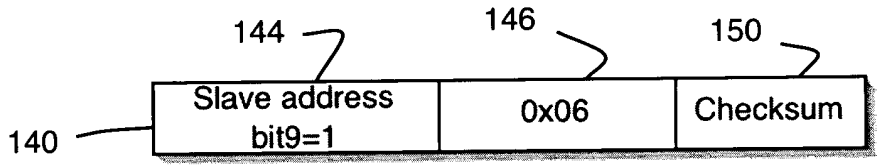


Broadcast Packet - switch bus

Fig. 9



Request for bus mastership



Acknowledge (ACK)

Fig. 10